

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

in re Application of:	,
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SALE, Richard et al.)
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Serial No.: 10/737,134)
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Filed: December 16, 2003	Ś
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Title: UNSUPPORTED MULTIZONE	Ì
MICROPOROLIS MEMBRANE	
WILKUPLIKULS VIEWISKAND	

Commissioner for Patents P.O. Box 1450 Arlington, VA 22313-1450

TRANSMITTAL OF INFORMATION DISCLOSURE STATEMENT WITHIN THREE MONTHS OF FILING DATE OR BEFORE MAILING OF FIRST OFFICE ACTION

SIR:

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In accordance with 37 C.F.R. §1.56, the materials listed on the attached PTO-1449 form are being brought to the Examiner's attention for consideration in connection with the examination of the above-identified patent application. Pursuant to 37 C.F.R. 1.98(d), the references cited are not enclosed because complete copies have been submitted in connection with related U.S. patent application no. 10/072,202, filed February 7, 2002; parent application number 09/923,640, filed August 7, 2001, now U.S. Patent No. 6,706,184, which is a continuation-in-part of U.S. provisional patent application no. 60/223,359, filed August 7, 2000; and of which this patent application is a Divisional Application. If the

Examiner requires copies of any of the references cited herein, please do not hesitate to contact the undersigned.

Respectfully submitted,

Date

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CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date indicated below.

Date: 2'35'04

Mary K Rudáltis

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PTO/SB/08a (08-03)
Approved for use through 07/31/2006. OMB 0651-0031
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Substitu	ite for form 1449A/I	РТО		Complete if Known			
/				Application Number	10/737,134		
INF	ORMATIO	N DISC	LOSURE	Filing Date	12/16/2003		
STA	TEMENT	BY AP	PLICANT	First Named Inventor	SALE, Richard et al.		
				Art Unit			
	(use as many s	heets as ned	cessary)	Examiner Name			
Sheet	1	of	3	Attorney Docket Number	CUNO-407.2		

		,	U.S. PAT	TENT DOCUMENTS	
Examiner Initials	Cite No.1	Document Number Number Kind Code (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		US- 3,876,738	04/1975	Marinaccio et al.	
		US- 4,001,024	01/1977	Dittman et al.	
		US- 4,203,847	05/1980	Grandine, 2nd	
		US- 4,203,848	05/1980	Grandine, Il	
		US- 4,340,479	07/1982	Pall	
		US- 4,340,480	07/1982	Pall et al.	
		US- 4,489,671	12/1984	Choinski	
		US- 4,629,563	12/1986	Wrasidlo	
		US- 4,645,602	02/1987	Barnes, Jr. et al.	
		US- 4,707,265	11/1987	Barnes, Jr. et al.	
		US- 4,770,777	09/1988	Steadly et al.	
		US- 4,774,039	09/1988	Wrasidlo	
		US- 4,854,262	08/1989	Chino et al.	
		US- 4,933,081	06/1990	Sasaki et al.	
		US- 5,171,445	12/1992	Zepf	
		US- 5,188,734	02/1993	Zepf	
-		US- 5,256,357	10/1993	Hayward	
		US- 5,433,859 ·	07/1995	Degan	
		US- 5,500,167	03/1996	Degan	
		US- 5,620,790	04/1997	Holzki et al.	

	FOREIGN PATENT DOCUMENTS									
Examiner	Cite		Foreign Patent Do		Publication Date	Name of Patentee or	Pages, Columns, Lines, Where Relevant			
Initials*	No.1	Office ³	Number ⁴	Kind ⁵ (if known)	MM-DD-YYYY	Applicant of Cited Document	Passages or Relevant Figures Appear	T ⁶		
		wo	93/22034		11/1993			Ш		
		wo	99/47246		09/1999					
		wo	02/11868		02/2002					
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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. Applicant's unique citation designation number (opflonal). See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. Enter Office that issued the document, by the two-letter code (WIPO Stantard ST.3). For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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Substitu	ite for form 1449A/P	то		Complete if Known			
				Application Number	10/737,134		
INFORMATION DISCLOSURE				Filing Date	12/16/2003		
STA	TEMENT I	BY A	APPLICANT	First Named Inventor	SALE, Richard et al.		
			_	Art Unit			
	(use as many sheets as necessary)			Examiner Name			
Sheet	2	of	3	Attorney Docket Number	CUNO-407.2		

		· · · · · ·		U.S. PAT	ENT DOCUMENTS	
xaminer nitials	Cite No.1			Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		US- 5,741,54	49	04/1998	Maier et al.	
		US- 5,834,10	07	11/1998	Wang et al.	
		US- 5,962,07	75	10/1999	Sartor et al.	
		US- 6,040,39	92	03/2000	Khanna et al.	
		US- 6,090,44	41	07/2000	Vining et al.	
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	FOREIGN PATENT DOCUMENTS												
F	0.1-	F	oreign Patent Do	cument	Publication Date	Name of Patentee or	Pages, Columns, Lines, Where Relevant						
Examiner Initials*	Cite No. ¹	Office ³	Number ⁴	Kind ⁵ (if known)	MM-DD-YYYY	Applicant of Cited Document	Passages or Relevant Figures Appear	T ₆					
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(Signature		Considered		
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r	not considered. I	Include copy of this form with next communication to applicant. Applicant's	unique citation of	designation number (opflonal).	See Kin

Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. Enter Office that issued the document, by the two-letter code (WIPO Stantiard ST.3). For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. Applicant is to place a check mark here if English language Translation is attached.

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PTO/SB/08B (08-03)
Approved for use through 06/30/2006. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

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Substit	ute for form 1449B/PT	0		Complete if Known				
		_		Application Number	10/737,134			
INF	ORMATION	N D	ISCLOSURE	Filing Date	12/16/2003			
STA	TEMENT I	RY	APPLICANT	First Named Inventor	SALE, Richard et al.			
"			/	Art Unit				
	(use as many s	sheet	's as necessary)	Examiner Name				
Sheet	3	of	3	Attorney Docket Number	CUNO-407.2			

	OTHER PRIOR ART NON PATENT LITERATURE DOCUMENTS							
Examiner Initials	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T²					
		ASTM (American Society for Testing and Materials) - Designation: E 1294-89 (Reapproved 1999) Standard Test Method for Pore Size Characteristics of Membrane Filters Using Automated Liquid Porosimeter.						
		TAYLOR, Shawn David, "Two Layer Slot Coating Study of Die Geometry and Interfacial Region," Master Thesis, McMaster University, Hamilton, Ontario, Canada, July 1997.						
		KISTLER, Stephan F. et al, Editors, "Liquid Film Coating," Scientific Principles and Their Technical Implications, Chapman & Hall, 1997						
		Troller Schweizer Engineering, "Concepts and Criteria for Die Design," brochure.	-					
Examine: Signature		Date Considered						

Examiner	Date	
Signature	Considered	

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not

² Applicant is to place a check mark here if English language Translation is attached. ¹ Applicant's unique citation designation number This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 120 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

	111 1	THE CT						
In re Ap	plicatio	n of:						
SALE, F	Richard	et al.						
Serial N	o.: 10/7	737,134						
		er 16, 2003						
Title:	UNSUP	PORTED MULTIZONE) POROUS MEMBRANE)						
P.O. Bo	ox 1450	for Patents A 22313-1450						
SIR:								
CFR 1	The fol .97 & 1	llowing are submitted in the above identified application in compliance with 37 .98: INFORMATION DISCLOSURE STATEMENT						
		INFORMATION 222						
[X]	1.	Pursuant to 37 CFR 1.97(b) [within 3 months of filing or prior to 1st Office Action]						
[]	2.	Certification Pursuant to 37 CFR 1.97(c) [before Final Office Action or Allowance]						
[]	3.	Fee Payment Pursuant to 37 CFR 1.97(c) [before Final Office Action or Allowance]						
[]	4.	Petition, Certification & Petition Fee Payment Pursuant to 37 CFR 1.97(d) [before issue fee payment]						
[X]	5.	A list of documents on form PTO-1449 together with copies of each identified document is enclosed herewith.						
This	manar i	s submitted in accordance with:						

This paper is submitted in accordance with:

37 CFR 1.97(b): [within 3 months of filing or prior to 1st Office Action] [X]

- [] 7. 37 CFR 1.97(c): [before Final Office Action or Allowance, whichever is earlier]; and
- [] 8. The required certification made in item 11 below; or
- [] 9. The \$180.00 fee specified in 37 CFR § 1.17(p) for submission of this Information Disclosure Statement is authorized in item 14 below.
- [] 10. 37 CFR §1.97(d): [before issue fee payment];
- [] Each item of information contained in this Statement was cited in a communication from a foreign patent office in a related foreign application not more than three months prior to the filing of this Statement; or
- [] 12. No item of information contained in this Statement was cited in a communication from a foreign patent office in a counterpart foreign application or, to the knowledge of the person signing this document after making reasonable inquiry, was known to any individual designated in 37 CFR 1.56(c) more than three (3) months prior to the filing of this Statement.
- [X] 13. Please charge all applicable fees associated with the submittal of this Information Disclosure Statement to Deposit Account No. 033879. An original and one (1) copy of this document is enclosed.

Respectfully submitted,

Date Date

7

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Date: 1-11

Mary Rudaitis

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				ATTY DOCKET NO. CUNO-407.2		SERIAL NO. 10/737,134			
- IN	FORMATION DISCLOSURE (Use several sheets if necess	APPLICANT(S) SALE, Richard et al.							
OPE				FILING DATE 12/16/2003		GROUP			
MAR 2	5 2004 👺	DOCUMENTS							
'E AMINER	DOCUMENT NUMBER	DATE	NAME		CLASS	SUBCLASS	SUBCLASS FILING DATE IF APPROPRIATE		
· ·	4,849,671	07/18/1989	Fendley				II AFTROF	NATE	
•	6,126,826	10/03/2000	Pacheco et al.						
	6,146,747	11/14/2000	Wang et al.						
	6,264,044	07/24/2001	Meyering et al.						
	6,280,791	08/28/2001	Meyering et al.						
	6,413,070	07/02/2002	Meyering et al.		s				
<u>, , , , , , , , , , , , , , , , , , , </u>	6,536,605	03/25/2003	Rice et al.						
	6,536,606	03/25/2003	Schneider et al.					:	
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	DOCUMENT NUMBER	DATE	COUNTRY		CLASS	SUBCLASS	TRANSLATION YES NO		
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	OTHER DOCUME	NTS (Includin	ng Authoi	r, Title, Date, Pertinent F	Pages, Etc	.)			
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Form PTO-A820 (also form PTO-1449)